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CHILTON'S

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THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE AUGUST 1988

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EXCELLENCE IN TRANSPORTATION MANAGEMENT

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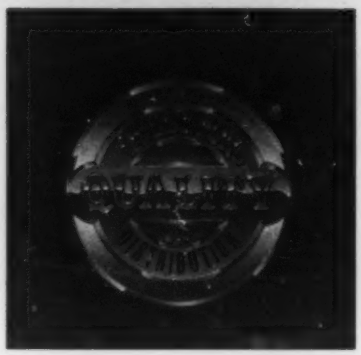
AUGUST, 1988

CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 87, NO. 8

COVER STORY



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More and more shippers have realized that their competitiveness in the marketplace depends on the performance of the carriers they use. Most transportation managers today are choosing their carriers on the basis of strict quality measurements. DISTRIBUTION's Quest For Quality program is designed to encourage such measurements by shippers.

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DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co., part of Capital Cities/ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1988. Subscription rate: U.S. and possessions, $45 per year. Canadian, $50. Foreign $70 Single issue $4.00 except Distribution Guide Issue—$40 per copy. Address editorial correspondence to Editor-in Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + 25¢.)

The nation's shippers pick their quality carriers—those who set the standard for excellence in transportation service.

DISTRIBUTION's 1988 QUALITY CARRIERS

REGIONAL LTL CARRIERS
Arkansas Freightways
Averitt Express
Con-Way Southern Express
Con-Way Western Express
NW Transport Service
Preston Trucking
Southeastern Freight Lines
TNT Bestway
TNT Holland
Transus
Willig Truck Lines

NATIONAL/INTER-REGIONAL LTL CARRIERS
ABF Freight System
Carolina Freight Carriers
Consolidated Freightways
Roadway Express
Watkins Motor Lines
Yellow Freight System

VAN LINES
Allied Van Lines
Atlas Van Lines
Bekins Van Lines
Mayflower Transit
United Van Lines

TRUCKLOAD CARRIERS
Carretta Trucking

WATER CARRIERS
ACT/Pace Line
Canada Maritime
Columbus Line
Dart Containerline
Hapag Lloyd
Maersk Line
OOCL
Trailer Marine Transport
Trans Freight Lines

RAIL CARRIERS
Burlington Northern
Grand Trunk Western
Missouri-Kansas-Texas
Union Pacific

RAIL THIRD PARTIES
American President Distribution Services
Greater South Traffic
The Hub Group

RAILCAR BUILDERS & LESSORS
Union Tank Car

STACK TRAIN SERVICES
American President Intermodal

AIR CARGO FORWARDERS
MSAS Cargo International
Northern Air Freight
Pilot Air Freight

We're looking for total performance in our carriers," says Robert Stoner, corporate traffic and fleet manager for Rite Aid Corp. "That means every aspect of service has to be performed well. We assign carriers very specific delivery times. If the carrier misses an appointment by more than an hour, that's one strike against him. If we have ongoing claims problems, that's two strikes. If the carrier rep fails to keep us adequately informed, that's three strikes. Just like in baseball, with three strikes, you're out."

That's the way business is done today in the big leagues of transportation management according to the nearly 1,400 shippers who took part in the 1988 Quest For Quality program. Shippers demand high performance in all aspects of their dealings with carriers. It's no longer just a game of finding the lowest prices for minimally acceptable service.

The survey is DISTRIBUTION's fifth annual report of how shippers rate the individual carriers and vendors of transportation services they use according to four key measurements of transportation quality: service, convenience, price and sales effectiveness. The scores on the following pages are based on shipper ratings ranging from 0 (unacceptable) to 5 (outstanding). A complete explanation of the survey's methodology appears on p. 46.

In the five years that DISTRIBUTION has been conducting this survey, more and more shippers have realized that their competitiveness in the marketplace depends on the performance of the carriers they use. Because the carrier selection process is so important to shippers today, most transportation managers are choosing their carriers on the basis of strict quality measurements. DISTRIBUTION's Quest For Quality program is designed to encourage such measurements by shippers. In addition, Quest For Quality recognizes those transportation companies that have:

•Identified shippers' needs and developed truly innovative services to meet these needs;

•Performed these services reliably and consistently with essential follow-up;

•Trimmed operating costs to be able to offer the services at reasonable, affordable prices;

•Made doing business with the carrier easy and convenient;

•Sold its services after learning about the shipper's business;

•Kept customers informed about the transportation company's capabilities.

Our Quest For Quality program is also designed to educate the shipper. Transportation managers who appreciate total quality in their carriers make better buying decisions. They also better understand the importance, to themselves and the industry, of dealing fairly and professionally with carriers.

Shippers who don't grasp this are doing serious, and perhaps permanent, damage to the industry, Stoner adds. "You can hound these guys to death on rates, but eventually the service is going to suffer," he says. "When service suffers, what do you have? You don't have a carrier. And then you're going to be stuck with somebody you didn't want to deal with in the first place."

MOTOR CARRIERS

NATIONAL/INTER-REGIONAL CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.22**	**3.22**	**3.29**	**2.86**
ABF	**3.41**	**3.36**	**3.35**	**3.16**
ANR	2.87	2.97	3.25	2.70
American Frt. Sys.	2.99	3.11	3.27	2.94
Brown Transport	2.76	2.93	3.27	2.52
Carolina Frt. Carriers	**3.41**	**3.38**	**3.37**	**3.01**
Consolidated Frtways	**3.40**	**3.52**	**3.44**	**3.26**
Lifschultz Fast Freight	2.84	2.61	2.97	2.34
Overnite Trans.	**3.48**	**3.33**	**3.47**	2.90
P.I.E. Nationwide	2.95	3.05	3.02	2.63
Pilot Freight Carriers	3.14	3.19	**3.29**	2.67
Roadway	**3.41**	**3.51**	**3.29**	**3.08**
Roberts Express	**4.48**	**4.03**	2.54	2.86
Transcon	2.91	2.93	3.04	2.81
Watkins Motor Lines	**4.05**	**3.73**	**3.62**	**3.59**
Yellow Freight	**3.66**	**3.72**	**3.42**	**3.38**

VAN LINE SERVICE CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.40**	**3.56**	**3.42**	**3.12**
Allied Van Lines	**3.49**	**3.67**	**3.64**	**3.13**
Atlas Van Lines	**3.71**	**3.93**	**3.43**	**3.54**
Bekins Van Lines	**3.44**	**3.59**	**3.43**	**3.15**
Mayflower	**3.40**	**3.59**	**3.56**	**3.27**
North American Van Lines	3.29	3.31	3.15	2.98
United Van Lines	**3.88**	**3.92**	**3.65**	**3.67**

TRUCKLOAD CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE	**3.57**	**3.27**	**3.29**	**2.74**
Builders Transport	**3.83**	**3.38**	**3.45**	2.66
Carretta Trucking	**4.23**	**3.59**	**3.32**	**3.36**
CRST	3.18	2.98	3.20	2.45
Dart Transit	3.54	**3.30**	3.22	2.76
Frederick Transport	**3.63**	**3.56**	**3.71**	2.82
Inway	3.25	3.00	3.09	2.73
J.B. Hunt	3.49	**3.32**	**3.58**	2.61
National Freight	2.60	2.40	2.72	2.16
Ranger Transportation	3.56	**3.29**	3.19	2.71
Ryder Freight System	2.93	2.85	2.80	1.93
Schneider Transport	3.27	3.07	3.04	2.35

** Averages calculated on basis of data for all carriers in category, not just those listed.*

MOTOR CARRIERS

Large LTL carriers saw their profits drop last year. Shippers think the carriers' service, convenience and sales effectiveness also took a dip; but higher scores for pricing indicate shippers still command hefty discounts from carriers hungry for freight.

Poor communications with carriers remains shippers' greatest complaint. Richard Stamper, general supervisor, materials control for Easco Hand Tools in Springdale, Ark. is put off by carrier reps that don't call, especially those that know his business because their line is used by vendors to drop off inbound freight. "They know we're here," he says. "Their trucks are coming in all the time, but the sales people just don't call."

Some large shippers are pleased with the growing popularity of national account sales efforts. For example, Texas Instruments' Edward L. Schulze, manager-materials services, says "If there's some problem, we'll go straight to a divisional level."

Other shippers don't see that as a bonus. Rite Aid's Robert Stoner says he balks when carriers try to assign national account reps to his business. Instead, he puts the carrier's local person in charge of fixing problems that crop up in that carrier's system, no matter where they happen. When you want national account people, "they're always 20 states away," says Stoner. "If you leave a message you might hear from them in three or four days."

Van lines enjoyed the highest overall ratings in all categories, while truckload carriers received higher scores than ever for service and convenience, but lower scores for pricing and sales. "Truckload reps rarely are interested in our real shipping needs," says Al Giunchi, corporate traffic manager of Hartz Mountain. "They're just brokering freight. We would like carrier reps to see our relationship as a two-way street."

MOTOR CARRIERS

BULK CARRIERS				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.58**	**3.54**	**3.18**	**2.91**
Chemical Leaman	**3.79**	**3.54**	2.93	2.61
DSI Tank Lines	3.42	3.08	**3.50**	**3.50**
Matlack	3.53	3.03	3.10	2.63

REGIONAL CARRIERS				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.51**	**3.27**	**3.18**	**2.92**
AAA Cooper	**3.60**	3.15	2.87	2.62
AAA Trucking	3.06	2.96	2.79	2.67
APA Transport	3.36	3.04	2.78	2.81
Advance Transportation	**3.52**	**3.38**	**3.25**	2.93
Arkansas Freightways	**3.97**	**3.38**	**3.40**	**3.07**
Averitt Express	**4.16**	**3.79**	**3.41**	**3.70**
Central Freight Lines	3.25	2.99	2.26	2.13
Central Transport	3.08	2.95	3.08	2.84
Churchill Truck Lines	3.39	3.18	2.89	2.97
Con-Way Central Express	**3.99**	**3.52**	3.05	**3.19**
Con-Way Eastern Express	3.18	3.21	3.17	2.77
Con-Way Southern Express	**3.80**	**3.40**	**3.40**	**3.25**
Con-Way Western Express	**3.71**	**3.52**	**3.52**	**3.15**
Estes Express	3.31	2.94	2.89	2.60
Fore Way Express	3.46	**3.31**	**3.55**	2.80
GI Trucking	3.30	3.17	3.02	2.17
Gross Common Carrier	3.47	3.19	**3.50**	**3.14**
Holmes Transportation	3.38	3.22	**3.28**	2.85
Jones Truck Lines	**3.53**	3.23	**3.37**	**3.22**
Kingsway	3.29	3.06	2.97	2.61
Merchants Fast Freight	3.30	2.95	2.73	2.53
Mistletoe Express	2.67	2.60	3.09	2.13
New Penn Motor Express	**3.62**	**3.37**	2.73	2.97
NW Transport Service	**4.22**	**3.74**	**3.60**	**3.80**
Old Dominion Freight	2.84	2.80	3.13	2.55
Preston Trucking	**3.57**	**3.53**	**3.30**	**3.20**
Red Arrow Freight Lines	3.00	2.96	2.61	2.52
St. Johnsbury	3.35	3.19	2.95	2.64
Southeastern Frt. Lines	**4.07**	**3.67**	**3.30**	**3.41**
Spartan Express	3.38	3.02	**3.31**	2.98
Stoops Express	**3.52**	3.15	**3.38**	2.73
TNT Bestway	**3.72**	**3.66**	**3.79**	**3.28**
TNT Holland	**4.03**	**3.61**	**3.36**	**3.38**
TNT Overland Express	3.11	3.20	**3.20**	**3.04**
TNT Red Star	3.50	**3.57**	3.15	**3.11**
Transus	**3.54**	**3.51**	**3.49**	**3.47**
Viking Freight	3.46	3.21	2.96	2.64
Willig Truck Lines	**3.79**	**3.56**	**3.42**	**3.27**

** Averages calculated on basis of data for all carriers in category, not just those listed.*

MOTOR CARRIERS

Bulk carriers received the highest service scores of any motor carriers. Service is almost everything for bulk shippers says Gary Baumgartner, traffic manager for Washington Public Power Supply in Richland, Wash. The company loses as much as $750,000 a day if his plant shuts down.

"Our bulk carriers literally go the extra mile for us," says Baumgartner. "We're in the middle of nowhere. One carrier has saved our butt several times because they're the only one in the Pacific Northwest with rubber lined tank cars, which we need for sodium hydrochloride. The tankers are extremely expensive, so you have to keep them moving. Yet the carrier always manages to squeeze us in."

Regional LTL carriers earned higher scores than the national carriers. Julia Cathey, office manager at Douglas Equipment Co. in Birmingham, Ala., heaps praise on a regional carrier shipping to her company's major service area no later than second day. "They will call me if a I forget to call them on a busy day," she says. "Sometimes a driver might just stop by to see if I need anything. Once I was swamped with freight bills on a busy day and their driver helped me write them."

Al Giunchi, corporate traffic manager for Hartz Mountain Corp., Harrison, N.J., prizes one attribute above all others: "They tell us the bad news first, before the customer finds out," he says. "That way we deal directly with the customer when something is wrong. Hartz doesn't work under the 'No news is good news' theory."

If shippers' perceptions of motor carrier service dimmed this year, their view of carrier sales efforts blacked out. Shippers are nearly unanimous in their panning of carrier sales reps. Many shippers complain that they never see a sales rep; others say the ones they do see are woefully unfit for the job.

WATER CARRIERS

STEAMSHIP LINES	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.36**	**3.25**	**3.17**	**2.84**
ACT/Pace Line	**3.55**	**3.55**	**3.45**	**3.45**
AMTRANS	3.00	2.67	2.94	2.72
American Pres. Lines	**4.00**	**3.91**	2.84	**3.27**
Atlantic Container Line	**3.85**	**3.81**	3.08	**3.27**
Atlanticargo	3.23	3.15	**3.46**	2.77
Barber Blue Sea	3.21	3.13	2.93	2.80
CCT	**3.54**	**3.38**	2.85	2.23
Canada Maritime	**3.94**	**3.53**	**3.71**	**3.06**
Cast North America	3.11	3.11	**3.78**	**3.00**
CGM	3.09	3.00	2.73	2.27
Chilean Line	2.82	2.67	2.59	2.22
Columbus Line	**3.93**	**3.85**	**3.30**	**3.41**
Dart Containerline	**3.42**	**3.37**	**3.35**	**3.08**
EAC Lines	2.90	2.80	**3.90**	2.73
Evergreen	3.15	3.13	**3.45**	2.67
Farrell Lines	2.52	2.64	2.85	2.67
Hanjin Container Lines	2.81	2.94	3.12	2.41
Hapag Lloyd	**4.06**	**3.71**	**3.21**	**3.29**
Hoegh Lines	2.93	2.73	**3.21**	**2.21**
Hong Kong Islands Line	3.00	3.09	**3.73**	2.50
Italian Line	2.85	2.43	**3.31**	2.86
Ivaran Line	3.24	2.94	2.59	2.24
Japan Line	2.57	2.53	2.57	1.87
Jugolinija	3.00	2.82	**3.82**	2.30
K Line	**3.50**	**3.33**	**3.25**	2.67
Korea Shipping	2.82	3.00	3.09	2.17
Lykes Lines	3.33	3.24	**3.57**	**3.25**
Maersk Line	**4.11**	**4.11**	**3.42**	**3.11**
Matson Navigation	**3.63**	**3.63**	3.00	**3.13**
Mitsui O.S.K.	2.88	3.06	3.12	2.83
NYK Line	3.25	2.94	3.06	2.76
Nat'l Shipping Co., S.A.	3.00	2.70	2.60	2.30
Navieras de Puerto Rico	**3.71**	**3.28**	3.12	2.94
Nedlloyd Lines	3.25	3.21	3.08	**3.08**
Neptune Orient Lines	3.24	3.11	2.38	2.59
Netumar Line	2.80	2.70	2.50	2.30
OOCL	**3.58**	**3.42**	**3.22**	**3.08**
Polish Ocean Lines	**3.47**	**3.32**	**3.79**	2.90
Sea-Land Service	**3.47**	**3.45**	3.11	2.79
TMT	**3.89**	**3.61**	**3.22**	**3.61**
Trans Freight Lines	**3.71**	**3.61**	**3.29**	**3.42**
Waterman Steamship	3.21	3.21	3.07	2.93
Westwood Shipping	3.22	3.22	**4.00**	**3.00**
Y.S. Line	3.20	2.90	**3.22**	2.80
Zim Container Service	**3.43**	**3.27**	**3.41**	2.87

** Averages calculated on basis of data for all carriers in category, not just those listed.*

WATER CARRIERS

Steamship lines saw a drop in all performance areas from last year, when they enjoyed the highest overall scores among all carriers. The greatest drop was in the sales category. "When it comes to customer relations, I don't have any," says Ed Beames, distribution unit manager for Pillsbury's Green Giant division in Watsonville, Calif. "With few exceptions I haven't seen a sales rep in months. Considering we ship about one million pounds per day, I find this neglect hard to understand."

Regular face-to-face meetings with carrier reps is important, says Beames. "I want carriers to come here and see our operation. I have special equipment needs," he says, "and I want to make sure the carrier understands these needs. We also have strict container weight limits on the highways, and I'm concerned about our compliance. Only one carrier I have talked to even seemed to care about my concerns. The responsiveness of ocean carrier sales reps is sadly lacking."

Carriers with inland door-to-door capabilities received the highest service scores. "Just about every carrier can get from port to port on time," says Ed Murray, import manager for Allied Chicago in Wheeling, Ill. "I want to use carriers who I can depend on to deliver to my door without my having to deal with customs clerks, railroads and truckers."

In the convenience category, carriers with EDI capabilities rated highly. "On-line information systems with our ocean carriers is important to our company," says Murray. "I'm tied into Customs with a couple of our carriers, and that lets me know the instant a container is cleared and ready for pickup. When we use carriers without this capability, a container can be cleared for days before we know it. There is no doubt which carrier I will use if I have a choice."

AIR CARRIERS

CONVENTIONAL FORWARDERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.12**	**3.08**	**3.05**	**2.70**
Air Express Int'l	**3.19**	**3.14**	**3.07**	2.70
Amerford Int'l	3.08	2.96	2.85	2.20
Associated Air Freight	**3.33**	**3.22**	**3.33**	2.68
Circle Air Freight	2.90	2.86	2.97	2.45
Dynamic Air Freight	**3.25**	2.67	2.83	2.42
Kintetsu World Express	**3.28**	**3.21**	**3.29**	2.54
MSAS Cargo Int'l	**3.34**	**3.45**	**3.41**	**3.00**
Northern Air Freight	**3.24**	**3.27**	**3.09**	**3.09**
Panalpina	3.11	**3.17**	**3.16**	2.56
Pilot Air Freight	**3.37**	**3.33**	**3.22**	**3.12**
Profit Freight Systems	**3.22**	**3.24**	**3.26**	2.96
Right-O-Way, Inc.	2.91	2.74	2.65	2.36
Schenkers	2.55	2.55	2.69	2.37
Seko	3.08	**3.23**	**3.23**	**3.00**
WTC Airfreight	3.09	**3.09**	3.04	2.76

SURFACE EXPRESS CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.38**	**3.31**	**3.56**	**2.12**
Purolator	**3.46**	**3.34**	3.36	2.44
Roadway Package System	3.13	3.18	**3.68**	2.88
United Parcel Service	**3.87**	**3.87**	**3.91**	2.24
U.S. Postal Service	2.57	2.34	2.94	1.20

AIR EXPRESS CARRIERS (SMALL PACKAGE)	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.61**	**3.54**	**3.31**	**2.38**
Airborne Express	3.37	3.35	**3.49**	2.41
Burlington Air Express	3.52	3.43	**3.44**	2.75
DHL	**3.71**	3.45	3.17	2.67
Emery Worldwide	3.05	3.09	2.82	2.44
Federal Express	**4.44**	**4.32**	**3.40**	2.90
Purolator	3.33	3.23	3.28	2.23
TNT Skypak	3.14	2.93	2.72	2.03
United Parcel Service	**3.92**	**3.91**	**3.78**	2.25
U.S. Postal Service	2.72	2.70	2.95	1.31

** Averages calculated on basis of data for all carriers in category, not just those listed.*

AIR FORWARDERS & EXPRESS

The conventional forwarder group suffered in all performance categories, especially service. The main problem, according to Pat Downing, traffic manager of CBC Industries in Los Angeles, is long-term consistency.

"When we first start using a forwarder, it is extremely responsive," says Downing. "Then things begin to slip. Pickups get missed. Billing errors don't get resolved. The forwarder just loses interest in the accounts he thinks he has in the bag. The only answer is to move on to another forwarder, where the pattern usually is repeated."

Surface express companies again earned high marks for service and convenience. The scores for price were the highest in the express group and second highest in the whole survey. Sales marks, however, were the lowest among all carriers. Shippers criticized these carriers for depending too much on drivers and telemarketing for shipper/carrier communications.

Air express carriers enjoyed the highest marks among all air carriers. "Service levels, transit time, and special reports are generally terrific with the overnight carriers we use," says Lynne Smith, administrator of transportation and shipping for NCR Corp. in Mountain View, Calif. "The only constructive criticism I would make is the lack of personal attention a branch location like ours receives. Our headquarters people do all the negotiations, so these carriers tend to take the business from branch locations for granted. We're the ones who really need the communications with the carrier reps. This year we have been asked by our corporate people for more input on the carriers, so it certainly is in the interest of the local carrier reps to call on us and give us the information we need. The service continues to be good, but no one likes to be ignored."

AIR CARRIERS

PASSENGER/CARGO AIRLINES	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.35**	**3.25**	**3.11**	**2.36**
Air Canada	**3.50**	3.05	**3.21**	1.94
Air France	2.92	3.00	2.92	1.50
Alaska Airlines	**3.82**	**3.73**	**3.55**	2.36
Alitalia	**3.62**	**3.38**	**3.62**	2.92
American Airlines	**3.47**	**3.40**	**3.15**	2.76
British Airways	3.26	3.05	3.00	2.19
Continental Airlines	3.00	2.73	3.06	1.73
Delta Airlines	**3.75**	**3.57**	**3.15**	2.53
Eastern Airlines	2.41	2.75	2.64	1.93
Japan Air Lines	**4.05**	**3.84**	**3.11**	2.67
KLM	**3.65**	**3.35**	**3.24**	2.13
Korean Airlines	**3.79**	**3.54**	**3.15**	2.38
Lufthansa	**3.97**	**3.63**	**3.17**	2.66
Northwest	2.47	3.03	2.97	1.88
Pan American	2.44	2.38	2.69	2.13
Piedmont	**3.63**	**3.33**	**3.37**	2.08
Sabena Belgian Airlines	3.18	**3.27**	2.91	2.30
TWA	3.34	**3.25**	3.04	2.74
United Airlines	**3.55**	**3.45**	**3.24**	2.52
USAir	3.11	**3.26**	3.03	2.52

ALL CARGO AIRLINES/FORWARDERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.58**	**3.52**	**3.24**	**2.54**
Airborne Express	3.18	3.17	3.17	2.25
Burlington Air Express	3.41	3.30	**3.50**	2.77
CF AirFreight	3.21	3.28	3.19	**3.12**
DHL	**3.60**	3.40	2.97	2.36
Emery Worldwide	3.22	3.13	2.71	2.37
Federal Express	**4.37**	**4.24**	3.23	2.82
Flying Tigers	3.13	3.14	3.11	2.57
Nippon Cargo Airlines	2.88	2.53	3.13	2.80
United Parcel Service	**3.88**	**3.88**	**3.87**	2.17

** Averages calculated on basis of data for all carriers in category, not just those listed.*

AIR CARRIERS

The scheduled airlines received widely varying scores, indicating that some combination passenger/cargo carriers are interested in doing business directly with shippers, while others are not. Shippers generally were satisfied with elements of service such as on-time pickup and delivery.

"Pricing isn't an issue with the scheduled air carriers," says Pat Downing, traffic manager for CBC Industries in Los Angeles. "Most rates are fair; there is surprisingly little difference among them." Sales scores are again low for both combination carriers and all-cargo airlines. With few exceptions, air carriers call on forwarders rather than shippers.

All-cargo airlines, especially the overnight service carriers, received outstanding scores for service and convenience. "Nobody's perfect, but these overnight carriers are close," says Pat Downing. "We're on-line with them so there is little paperwork. The bar-coded tracing is great, and their second-day service is a bargain since 60 percent of the shipments arrive next day."

Shippers also praise the all-cargo carriers that have invested in freight hubs, large ground fleets and dedicated lift. "These air carriers are showing the whole transportation industry how to be in the freight business," says Downing.

Overnight carriers attempting to increase their international business get mixed reviews. "One carrier touting itself as an international express company bungled several simple shipments from Canada to Oregon," says Jim Strehl, purchasing agent for Fluid Air Components in Eugene, Ore. "They blamed Canadian customs. But another express carrier we use hasn't had a service failure in three years from points all over the world. If a carrier calls itself international, it has to perform regardless of the difficulties."

RAIL CARRIERS

CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.26**	**3.16**	**3.07**	**2.78**
Burlington Northern	**3.73**	**3.57**	**3.70**	**3.07**
CSX	3.06	3.00	2.85	2.86
Canadian National	3.23	3.14	2.95	2.86
Canadian Pacific	**3.50**	3.11	2.94	**3.00**
Chicago & North Western	3.20	3.06	**3.15**	2.56
Conrail	3.21	3.00	3.06	2.64
Delaware & Hudson	1.06	1.57	1.63	1.53
Denver & Rio Grande	**3.70**	**3.35**	**3.33**	2.91
Florida East Coast	**4.00**	**3.60**	**3.30**	2.80
Grand Trunk Western	**3.39**	**3.33**	**3.39**	**3.11**
Illinois Central	**3.38**	**3.19**	**3.26**	2.55
Kansas City Southern	**3.33**	**3.39**	3.00	**3.00**
Missouri-Kansas-Texas	**3.40**	**3.43**	**3.57**	**3.14**
Norfolk Southern	**3.48**	**3.41**	3.05	2.98
St. Louis SW Railway	3.16	**3.39**	**3.28**	**3.11**
Santa Fe	**3.51**	**3.29**	2.91	2.76
Soo Line/Milwaukee Road	2.96	2.67	2.75	2.29
Southern Pacific	2.68	3.00	2.63	2.44
Union Pacific Railroad	**3.57**	**3.30**	**3.21**	**3.05**

RAIL FORWARDERS, AGENTS & CONSOLIDATORS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.51**	**3.51**	**3.44**	**3.17**
Alliance Shippers	3.29	3.27	**3.67**	2.73
Am. President Dist. Services	**3.57**	**3.62**	**3.52**	**3.48**
Greater South Traffic	**3.65**	**3.83**	**3.61**	**3.50**
The Hub Group	**3.82**	**3.89**	**3.67**	**3.94**
ITOFCA	3.00	2.92	2.92	2.83

RAILCAR BUILDERS & LESSORS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.46**	**3.46**	**3.27**	**3.36**
GATX	**3.54**	3.38	2.85	3.08
GE Railcar	2.94	3.00	3.13	2.50
Pullman Leasing	**3.56**	3.22	**3.30**	**4.00**
Union Tank	**4.00**	**3.92**	**3.58**	**3.83**

STACK TRAIN SERVICES	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.69**	**3.60**	**3.69**	**2.97**
Am. Pres. Intermodal	**4.24**	**4.19**	**3.95**	**3.24**
Burlington Northern	**4.00**	**3.82**	3.60	2.83
CSX/Sea Land	3.55	3.58	3.33	**3.00**

** Averages calculated on basis of data for all carriers in category, not just those listed.*

RAIL SERVICES

Rail carriers' scores were either high or low; there wasn't much middle ground. "Rail service is improving," says Tony Reed, corporate transportation manager for Payless Cashways in Kansas City, Mo. "We're about halfway there. There are still a lot of railroads on the fence in terms of what their role is."

Sales scores generally were low. A big complaint among shippers is the growing dependence on telemarketing. "I have an aversion to 800 numbers," says Joyce Soules, traffic manager for Commodities Reserve in San Francisco. "Even for something as simple as a rate, I rarely get a call back before the freight is shipped and delivered. It's just not a responsive way to deal with shippers."

Rail third parties received higher scores than last year. "This group is gaining market share because they've gone from being talkers to being good listeners," says Tony Reed. "They've become realists; they know they're not going to take all your business, so they go one segment at a time."

Reed's definition of a good rail carrier? "They do what they say they can do. The trains run on time. No forked tongues. They try hard," he says. "They know that if it's good for you, it's good for them. They don't try to be all things to all people."

Railcar builders and lessors again received high marks, including the highest sales scores for any group. "The sales people are knowledgeable about the equipment and what they can do," says Gary Baumgartner of Washington Public Power Supply.

Stack train operators were rated for the first time this year, and generally they received high marks. "Stack train service gives us an alternative to TL and piggyback," says Tony Reed. "The niche for this service will continue to grow if the pricing remains fair and the service holds up."

METHODOLOGY

DISTRIBUTION's *Quest For Quality* survey is a rating of transportation companies by the shippers who use them regularly.

The data was gathered from questionnaires for each mode of transportation that were bound into monthly issues of DISTRIBUTION. Each questionnaire included the name of major carriers of that mode or vendors of a particular service. Each questionnaire also included space for write-ins. The questionnaires were bound in as follows:

January—Motor Carriers
February—Air Freight Carriers, Forwarders, Air Express Companies and Surface Express Companies
March—Rail Carriers, Agents, Stack Train Operators and Railcar Lessors
April—Water Carriers

Each questionnaire was reviewed for genuineness. No photocopies were accepted, and only questionnaires on which the respondent identified himself and his company were counted. A total of 108 questionnaires were rejected for noncompliance. Any questionnaire that appeared to be filled out by a carrier or at the behest of a carrier was checked out. A total of 89 ballots turned out to be carrier-initiated and had to be rejected.

Exactly 1,200 questionnaires qualified completely. Each of these questionnaires was coded according to state and standard industry code.

DISTRIBUTION asked respondents to rate the carriers and vendors they use in the following performance categories:

- *Service—transit times, routing and equipment.*
- *Convenience—billing, tracing, EDI capability, claims settlement.*
- *Price—rate levels and fairness, contract price levels and terms.*
- *Sales—salesmen's knowledge of their company's capabilities and the customer's needs.*

Shippers rated carriers they use regularly on a scale of 0 (unacceptable) to 5 (outstanding).

The ratings for each carrier appearing in this report were calculated by multiplying the number of votes by their point value. Total points were then divided by the number of shippers evaluating the carrier to find the average. For example, the rating for XYZ Company's service would be calculated as follows:

Range	*Respondents*	*Value*
0	*100*	*0*
1	*30*	*30*
2	*90*	*180*
3	*20*	*60*
4	*230*	*920*
5	*110*	*550*
Total	*580*	*1740*

Average: 3.000

Category averages are the sum of all carrier averages received (not just those reported) divided by the number of carriers in the section. This report only includes ratings for carriers that received enough votes to allow statistically measurable results.

The Quality Carriers

DISTRIBUTION has designated a number of transportation companies as "Quality Carriers" (See page 28). Each of these carriers received ratings in all performance categories higher than the averages for their group. No company with a rating lower than 3.00 (just acceptable performance) in any category qualified as a "Quality Carrier."

No effort has been made to rank the carriers. A generalized ranking would be meaningless since each shipper has different priorities in terms of the importance of various performance categories. For example, some shippers may weigh service more heavily than convenience, and so on. Before any shipper can calculate which carrier has the "performance profile" it is looking for, it must establish a weighting for each category.

The simplest way to do this is to assign weighted point values to the four performance categories. For instance, take a total of 10 points and assign the appropriate weighting to service, price, convenience and sales effectiveness, based on the importance of each performance category to you.

After determining the weightings, multiply them times the reported scores for the various carriers. The carrier with the highest total of points after four categories have been extended is your best carrier.

Here's an example. Suppose your weighted scale of carrier performance characteristics is four points for service, three for price, two for convenience and one for sales effectiveness. The extended scores and total points for the XYZ Company would be:

Performance Category	*Reported Score*	*Weight Factor*	*Total Score*
Service	*3.000*	*4*	*12.000*
Price	*3.100*	*3*	*9.300*
Conv.	*2.800*	*2*	*5.600*
Sales	*2.500*	*1*	*2.500*
Total			*29.400*

A Caveat To Readers

In the past, certain carriers have attempted to use the ratings in our *Quest For Quality* survey as a competitive ranking system. We caution readers not to pay any attention to such manipulations of numbers and improper use of our survey. Such use is statistically meaningless. It also corrupts the intent of the survey.

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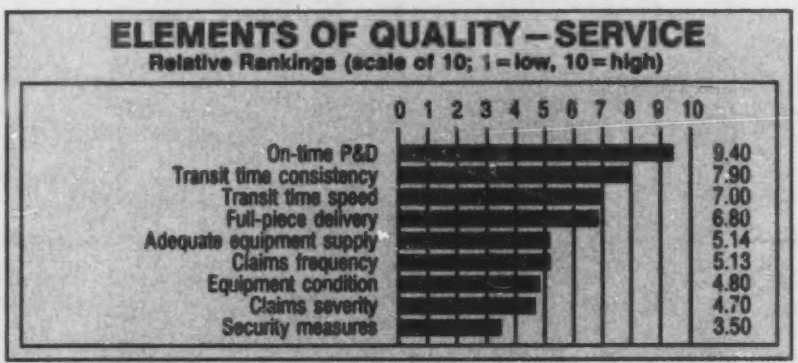
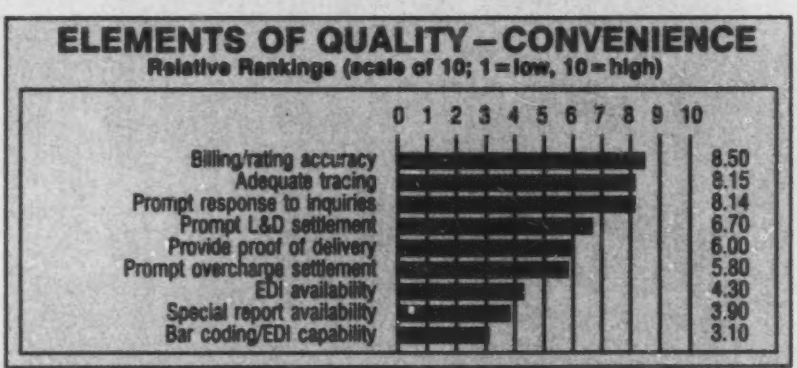
BASIC TRAINING

Hup, two, three, four—shippers sound off and tell us what quality means for them. Some of the answers may surprise you.

By Joseph V. Barks, Contributing Editor


ELEMENTS OF QUALITY—SERVICE
Relative Rankings (scale of 10; 1=low, 10=high)
0 1 2 3 4 5 6 7 8 9 10
On-time P&D 9.40
Transit time consistency 7.90
Transit time speed 7.00
Full-piece delivery 6.80
Adequate equipment supply 5.14
Claims frequency 5.13
Equipment condition 4.80
Claims severity 4.70
Security measures 3.50

Getting it there complete, safe and undamaged are still important considerations, but shippers' rankings of the elements of service quality make it clear that what really counts is just getting it there, period. And of the elements that relate to transit time, shippers leave little doubt as to which one they consider the most vital. Nearly 60 percent of the respondents said the most important building block of service quality is on-time pickup and delivery—the art and science of getting it there precisely when you say you will, no matter if you're the fastest, slowest or somewhere in between.


ELEMENTS OF QUALITY—CONVENIENCE
Relative Rankings (scale of 10; 1=low, 10=high)
0 1 2 3 4 5 6 7 8 9 10
Billing/rating accuracy 8.50
Adequate tracing 8.15
Prompt response to inquiries 8.14
Prompt L&D settlement 6.70
Provide proof of delivery 6.00
Prompt overcharge settlement 5.80
EDI availability 4.30
Special report availability 3.90
Bar coding/EDI capability 3.10

Convenience in freight transportation is far different than convenience in personal transportation, judging from our shippers' ratings. The key to making personal transportation convenient is providing unexpected extras, such as shuttle buses or extra check-in locations. Yet those who pay for freight transportation are looking primarily for the expected: bills that reflect quoted rates, tracing that eliminates guesswork and responsiveness to inquiries. At this point, most shippers still do not equate convenience quality with extra services like proof of delivery, bar coding, EDI, or customized reports. As shippers become more sophisticated, and more satisfied with basic carrier service, these innovations will become more important.

There often is a close connection between quality and the basics. Ivory Soap. Golden Books. Levi's jeans. Products perceived as simple, pure, and of unwavering quality. Made by companies with reputations for unrelenting attention to the fundamentals.

It's a connection that certainly is clear to DISTRIBUTION's readers. When more than 380 shippers responded to our call to define the elements of transportation quality, the message was unmistakable: ,Quality carriers are those that have mastered the basics. Computer age extras like EDI, tracing hotlines and rate diskettes are great, shippers say, but they won't make a quality carrier out of one that loses freight, delivers late, or doesn't have the right equipment.

What are the keys to helping carriers develop a basic, and therefore high quality, grasp of transportation operating principles? Some of our respondents rattled off the usual list of platitudes. Communication. Win-win attitudes. Partnerships. A mutual understanding of needs. But many went deeper, and provided pragmatic suggestions for what both carriers and shippers can do to infuse quality into the transportation process. Some of the more useful tips are included in the box on page 56.

Shippers also were asked to rank the elements of quality, on a scale of 1 to 10, within each of quality's four primary components: service, convenience, pricing, and sales effectiveness/communication. They then were asked to show, on a scale of 1 to 4, the relative importance of those four components as determinants of overall quality. Shippers also re-

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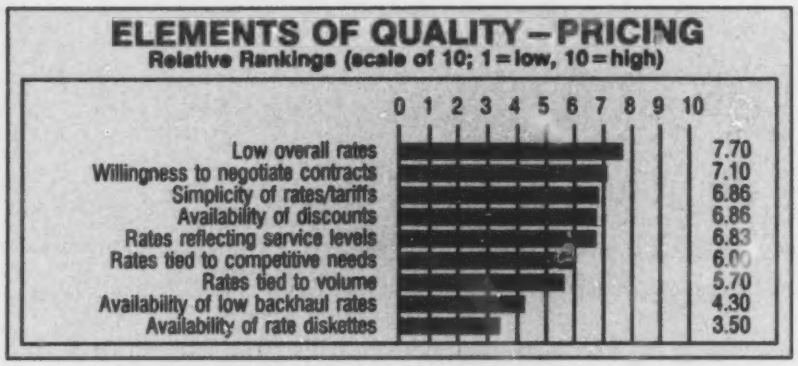
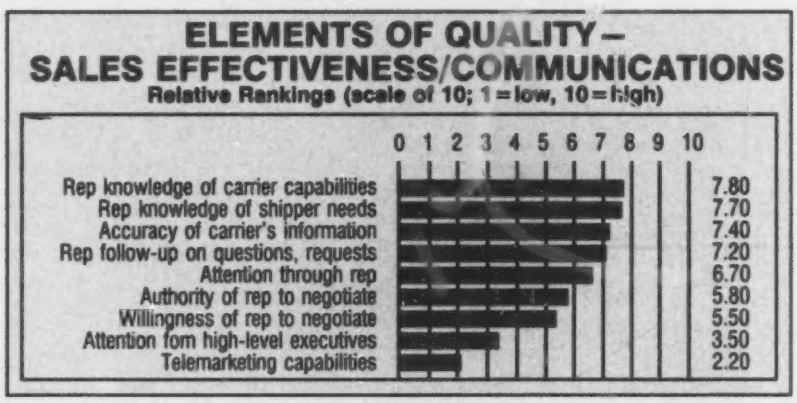

ELEMENTS OF QUALITY—PRICING
Relative Rankings (scale of 10; 1 = low, 10 = high)
0 1 2 3 4 5 6 7 8 9 10
Low overall rates 7.70
Willingness to negotiate contracts 7.10
Simplicity of rates/tariffs 6.86
Availability of discounts 6.86
Rates reflecting service levels 6.83
Rates tied to competitive needs 6.00
Rates tied to volume 5.70
Availability of low backhaul rates 4.30
Availability of rate diskettes 3.50

The relative rankings depicted here show a fairly even dispersion of shipper opinion about what constitutes a "quality" price. Their true feelings come through much more strongly, however, when the percentages of number one rankings given to each element are analyzed. Just under one-third of the respondents indicated that first and foremost, a quality price is still a low one. The percentage of number one mentions for low overall price was twice as large as the top choice percentage for any other single element. Note here that handing a shipper a rate diskette is not likely to automatically create an impression of quality; unless, of course, the diskette contains those popular "low overall rates."


ELEMENTS OF QUALITY—
SALES EFFECTIVENESS/COMMUNICATIONS
Relative Rankings (scale of 10; 1 = low, 10 = high)
0 1 2 3 4 5 6 7 8 9 10
Rep knowledge of carrier capabilities 7.80
Rep knowledge of shipper needs 7.70
Accuracy of carrier's information 7.40
Rep follow-up on questions, requests 7.20
Attention through rep 6.70
Authority of rep to negotiate 5.80
Willingness of rep to negotiate 5.50
Attention fom high-level executives 3.50
Telemarketing capabilities 2.20

Memo to high-level carrier executives: spend less time jetting around to shower your customers with lavish attention, and more time building solid training and sales operations back home. That's the message that comes through clearly from the shipper feedback about the elements of sales/communications quality. While shippers want ready access to top carrier management when necessary, a quality carrier, in their eyes, is one that makes sure the irate call to the president never becomes necessary. To do that, shippers say, carrier management needs to give sales reps the training, information, authority, and tools needed to be consistently responsive to shipper requirements. Only after the carrier has developed a solid, well-informed sales force, do promotion and direct contact with carrier executives become important (meaning credible) communications tools.

sponded to questions about: whether formal quality programs exist within their departments; who administers such programs; what techniques are used to measure and monitor quality; and the extent of communications with carriers about quality. The rankings and responses for these questions are summarized in the charts found on these pages.

Doing It Right

While the charts tell the specific story about how shippers define quality, here are some general "do and don't" guidelines that can be drawn from their responses:

Do Your Part. Shippers' responses reflected a keen sense of self-responsibility that extends far beyond "win-win" cheerleading. There was frequent acknowledgement that quality defects in transportation are just as likely to be traced to the shipper's operation as to the carrier's. Quality will not materialize, shippers made clear, unless the standard-setting and auditing processes include in-depth and continuous introspection, for every facet of the relationship: rate negotiation, shipment preparation, information exchange, post-delivery follow-up, etc.

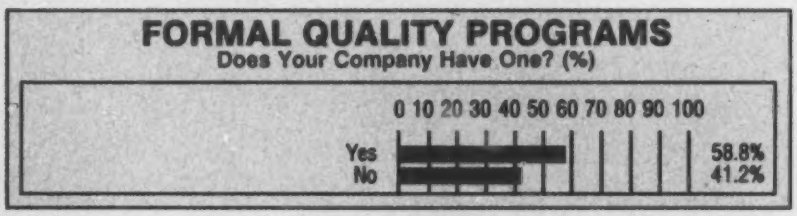
Don't Push the Envelope. You can't paint a quality landscape with a spray gun, shippers indicated. The most effective efforts seem to be those that are focused on very specific objectives: on-time, damage-free, no complaints, etc., and confined to a manageable group of key carriers. Overly general or excessively ambitious programs, many respondents pointed out, create unwieldy administrative agendas that can quickly unravel enthusiasm and effectiveness.

Don't Spare the Glue. After writing "Communication!" three times, one respondent added a triple play of another "C" word that's heard far less often, but is equally critical: "Commit! Commit! Commit!" His sentiments were echoed by many other shippers who stressed that quality programs are sure to collapse if there's any hint they're held together more by a whim than a weld.

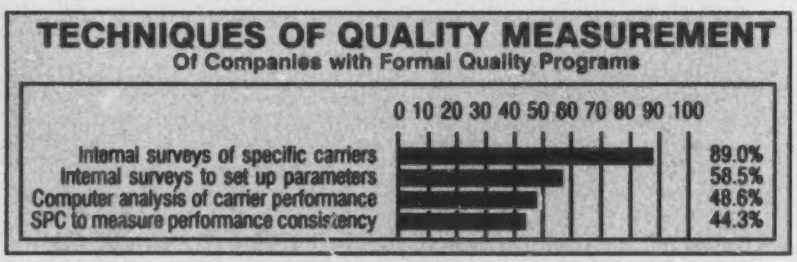
continued

MAJOR QUALITY ELEMENTS
Relative Rankings (scale of 4; 1 = low, 4 = high)
0 1 2 3 4
Service 3.8
Pricing 2.9
Convenience 1.9
Sales Effectiveness 1.5

There were days earlier in this decade, during the height of discount fever, when shippers unashamedly admitted that price was the key determinant of a carrier's value. Then there were days when the service/price factions were pretty evenly divided. But today, when the question is put to shippers in a quality context, service surges to the top. More than 78 percent of the respondents made it their number one choice. One respondent typified the current service/price sentiment this way: "You have to realize that there is a correlation between discounts and service. If your demands are for attentive service, you can't expect 'bargain basement' rates."



If you can imagine Don Johnson and Prince Charles at the same "black tie" function, you know that one person's definition of "formal" is another's idea of a downright undisciplined approach. Semantics aside, though, it appears that a surprising number of shippers still choose to low-key their efforts to define, communicate and implement quality standards.


TECHNIQUES OF QUALITY MEASUREMENT
Of Companies with Formal Quality Programs
0 10 20 30 40 50 60 70 80 90 100
Internal surveys of specific carriers 89.0%
Internal surveys to set up parameters 58.5%
Computer analysis of carrier performance 48.6%
SPC to measure performance consistency 44.3%

Reflecting the informality that still seems to pervade the quality scene in transportation and logistics, many shippers that profess to have formal programs eschew the more precise measurement techniques (statistical process control and other computerized analyses) in favor of looser sets of internal surveys and standards.

Do More Than Routine Maintenance. Quality is definitely not a turnkey operation, respondents said. To keep it working over the long haul, program managers must be able to continually distinguish between correctable and untenable situations, and adjust appropriately to both. In the case of what can't be fixed, that means being willing to scale back a program's scope, reduce its complexity, or toss out carriers that just can't cut it.

Don't Forget Who's Boss. Many responses to our survey were coated with an uncharacteristic tinge of Alexander Haig-ism: the "I'm in charge here" approach. The respondents made it clear that "win-win" can only go so far; there comes a point when shippers who are serious about quality play their upper hand. "Never let the carrier forget who is paying the bills," said one respondent. "Remind them that Big Brother will be watching!" decreed another.

Elaborate Exceptions

Some respondents went beyond this basic framework and described more elaborate and sophisticated approaches for bringing quality to the transportation/distribution process. Several shippers described successful programs built around the principles of statistical process control, or the carrier performance measurement guidelines of the Automotive Industry Action Group.

In the final analysis, however, quality for our surveyed shippers still boils down most often to a by-the-numbers exercise. The quality "routine" currently in favor is best summarized in this list supplied by Barry R. Joy, production planning manager of Power Lawn Mower Parts, Rochester, N.Y.:

1) Let carriers know what the needs are.

2) Demand that needs be met (reasonable demands).

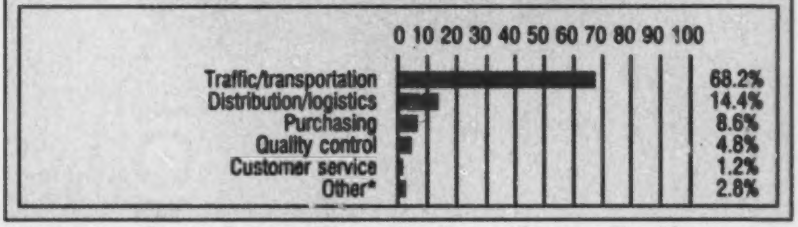
3) Monitor carrier performance.

4) Correct program as required (carrier replacement).

It's an approach that's bringing everyone to attention. ■

continued

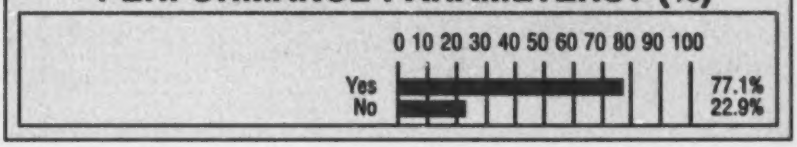
WHICH DEPARTMENT RUNS FORMAL QUALITY PROGRAM?



*Accounting, Freight Payment, Sales, Warehouse Manager, Top Management, Shipping Manager, General Manager, Finance

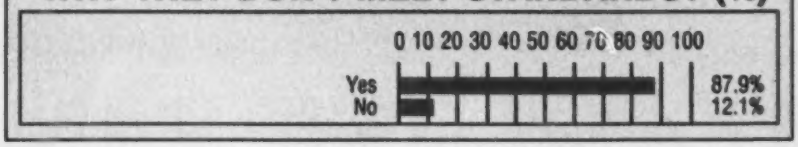
The preponderance of traffic/transportation responsibility for implementation of programs seems to indicate that the quality movement in our field is still largely confined to the more mundane aspects of distribution performance. Remember, however, that this survey was specifically geared to quality in transportation. Many shippers also have separate programs, administered by distribution or logistics departments, that are focused on more wide-ranging and elaborate quality objectives.

DO YOU PROVIDE CARRIERS WITH PERFORMANCE PARAMETERS? (%)



As one would expect, given the respondents' obsession with communication as an indispensable springboard to quality, carriers certainly can't claim ignorance about shippers' efforts to bring more discipline to the transportation transaction.

DO YOU INFORM CARRIERS WHY THEY DON'T MEET STANDARDS? (%)



What's even less excusable than not knowing in the first place what the shipper's standards are? When a carrier slips up a second time, or fails to make a better showing in a subsequent bidding process. As these results show, shippers are extremely diligent about letting all carriers (those they use and those they reject) know where they stand—or fall.

TRANSPORTATION QUALITY: SOME SHIPPER TIPS

"Write letters to higher-ups to congratulate the underlings when goals are exceeded."—**Richard Isserman, Traffic Manager, Primo Co., St. Louis, Mo.**

"Hold carriers to the standards they present in sales presentations and advertising. Handing a sales rep a stack of delivery receipts showing sub-standard performance works well."—**Rodger J. Wills, Traffic Manager, Young Radiator Co., Racine, Wis.**

"Try to work with carriers when problems develop, but set a cut-off date if progress is not made."—**Michael Hayes, Distribution Manager, Hewlett-Packard, Rockaway, N.J.**

"Get the carrier's commitment, and 'get on their ass' if they don't perform."—**John P. Galvin, Manager, Mack Trucks, Inc., Hayward, Calif.**

"Get upper management recognition of the logistics function, to create the environment conducive to a quality management program."—**David H. Fuller, Director-Logistics, Bendix Transportation, South Bend, Ind.**

"Don't jump from carrier to carrier for small differences in pricing."—**Ann M. Corney, Traffic Manager, Rotor Controls, Rochester, N.Y.**

"Know when a certain discount means less quality."—**Jerry Richmond, Traffic Manager, Skyline Skylites, Colorado Springs, Colo.**

"Develop long-standing relationships so the carrier will eventually operate as a 'link' between the shipper and the customer, rather than simply as a transportation vehicle."—**Douglas Larkin, Distribution Manager, Baker Instruments, Winchester, Va.**

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MORE FREIGHT, LESS PROFIT FOR NATION'S CARRIERS

What a difference a year makes. In 1986, truckers turned in record profits. Last year they found holes in their pockets. And while the railroads enjoyed higher volumes and revenues, profit margins headed down the wrong track.

By Kurt Hoffman, Contributing Editor

Last year was a tough one for that large segment of the LTL industry—which unfortunately includes the industry leaders, thus ensuring a trickle-down effect—that simply can't say no to the discount war.

Rate adjustments taken in the first half of the year generally failed to hold, and companies had to eat the labor and fuel cost increases those rate hikes were intended to cover.

One of the more successful performers in 1987 again was Viking Freight System. One Viking official attributes much of the LTL industry's generally poor profit performance to a general lack of discipline by managers, particularly with regard to pricing.

"Too many motor carriers, some with good costing and pricing systems, have been pricing indiscriminately to gain short term market share," says David H. Hess Jr., senior vice president of marketing for Viking Freight System. According to Hess, there is a trend for shippers to forego the absolute emphasis on low freight rates in exchange for developing partnerships with carriers in situations where price/service packages tailored to specfic distribution needs can help both the shipper and carrier reduce their costs. "And only the low-cost, not low-price, carrier will survive," he adds.

The Big Three

Yellow Freight System reported a 15 percent gain in tonnage but a 46 percent drop in net income last year, from $74.4 million in 1986 to $40.2 million. Similar figures for the rest of the top trio reflected severe rate pressures among the LTL giants as they bought market share from smaller competitors. Consolidated Freightways boosted its tonnage by more than 10 percent, but saw profits drop by 23 percent, from $60.8 million to $46.3 million. And Roadway Express, while reporting a tonnage increase of nearly 12 percent, saw profits drop by close to a third, from $96.6 million to $66.9 million.

While many fingers pointed to Roadway Express as the discount leader, Graeme Lidgerwood, senior transportation analyst at First Boston, indicates that there's enough blame to go around. "We believe that the irresistible urge of most carriers to go after market share and excess industry capacity are probably more to blame for the intense rate pressure."

1988 To Date

Light could be at the end of the tunnel in 1988. Higher labor costs stemming from a new National Master Freight Agreement approved in April could put the skids, at least temporarily, to rate-slashing among the LTL biggies, most of which are union carriers.

Lidgerwood indicates that a greater degree of stability now is evident in the market. "The rate increases implemented earlier this year seem to be holding," she points

continued on p. 72

KEY PERFORMERS—TRUCKLINES

OPERATING REVENUE

Carrier	$ Million
Yellow Freight System	1,740.7
Roadway Express, Inc.	1,596.3
Consolidated Freightways	1,555.2
North American Van Lines	790.5
Overnite Transportation	543.1
ABF Freight System	526.3
Carolina Freight Carriers	472.6
United Van Lines, Inc.	419.4
ANR Freight System, Inc.	405.9
Allied Van Lines, Inc.	382.7
American Freight System	353.6
Transcon Lines	333.2
Preston Trucking Co.	318.9
Mayflower Transit	312.1

KEY PERFORMERS—TRUCKLINES

HIGHEST OPERATING RATIOS

Carrier	Operating Ratio
TNT Pilot	113.1
Smith's Transfer	111.0
Spartan Express	110.6
Red Arrow Freight Lines	110.1
Transus	107.9
American Freight System	107.1
CW Transport	106.6
Holmes Transportation	106.6
Ryder Freight System	106.2
North Penn Transfer	105.4
Auto Convoy	104.1
Transcon Lines	103.3
ANR Freight System	103.1
Refiners Transport	103.0
Lyons Transportation	102.8

LOWEST OPERATING RATIOS

Carrier	Operating Ratio
New Penn Motor Express	82.0
Estes Express Lines	82.5
J.B. Hunt	85.0
Overnite Transportation	86.9
Saia Motor Freight Line	86.9
Wilson Trucking Corp.	88.0
TNT Holland	88.1
Contract Freighters	88.4
Burnham Service Co., Inc.	88.5
St. Johnsbury Trucking	89.3
Marten Transport	90.2
Munson Transportation	90.3
AAA Cooper Transportation	90.4
Missouri Nebraska Express	90.7
Commercial Carrier Corp.	91.1
DSI Transports, Inc.	91.4

HOUSEHOLD GOODS CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Allied	1987	382.74	3.56	5.36	0.62	99.1	14.75
Van Lines	1986	376.91	(0.34)	3.66	0.62	100.1	11.32
American	1987	27.64	0.38	0.31	0.05	98.6	38.30
Red Ball[7]	1986	25.58	0.55	0.82	0.05	97.8	61.41
Paul Arpin	1987	31.32	1.38	1.00	0.05	95.6	33.77
Van Lines	1986	28.27	1.40	0.89	0.05	95.0	32.30
Atlas Van	1987	182.59	10.58	0.56	0.28	94.2	-0-
Lines[7]	1986	179.76	12.55	1.55	0.27	93.0	-0-
Bekins	1987	207.06	0.16	0.61	0.37	99.9	1.99
Van Lines[7]	1986	197.55	1.98	1.46	0.33	99.0	4.46
Burnham	1987	93.88	10.[illegible]	5.32	0.18	88.5	36.71
Service Co.	1986	89.49	10.72	4.84	0.18	88.0	43.30
Global	1987	55.33	1.04	0.65	0.12	98.1	9.97
Van Lines[7]	1986	46.21	(0.58)	(3.92)	0.11	101.3	-0-
Graebel	1987	62.12	1.12	0.48	0.07	98.2	9.82
Van Lines	1986	50.16	2.96	1.42	0.06	94.1	38.65
Interstate	1987	13.21	0.80	0.90	0.02	94.0	25.34
Van Lines	1986	15.44	0.61	0.76	0.03	96.0	24.74
Mayflower[7]	1987	300.33	17.34	12.32	0.67	94.2	23.71
Transit Co.	1986	298.95	9.10	4.75	0.66	97.0	10.62
National	1987	21.83	0.06	0.09	0.04	99.7	10.20
Van Lines	1986	22.26	0.44	0.47	0.04	98.0	91.47
North American	1987	507.78	20.37	20.24	0.77	96.0	11.87
Van Lines[6]	1986	458.02	16.50	23.50	0.68	96.4	15.02
Pan American	1987	12.36	0.03	0.06	0.05	99.8	6.66
Van Lines[7]	1986	13.98	0.24	0.19	0.04	98.3	20.89
United	1987	405.90	3.88	(0.78)	0.80	99.0	-0-
Van Lines[7]	1986	382.89	6.20	1.66	0.69	98.4	5.80
Wheaton	1987	44.61	2.51	1.62	0.07	94.4	9.60
Van Lines	1986	40.66	2.40	1.72	0.06	94.1	11.26

[1]Net Carrier Operating Income – Difference between carrier operating revenues and carrier operating expenses.
[2]Net Income – After including fixed charges, non-operating income, income taxes, unusual or infrequent items, earnings attributable to discontinued segments, extraordinary items, and cumulative effect of changes in accounting principles.
[3]Revenue tons hauled reflects common and contract carrier service.
[4]Operating Ratio – Ratio of operating expenses to operating revenues.
[5]Return on Equity – Ratio of net income to shareholders' equity less tangible property at end of previous calendar year. The symbol -0- indicates a deficit in net income and/or shareholders' equity.
[6]North American Van Lines, Inc. conducts household goods and general freight operations, both of which are substantial in scope. In this report, the operating revenues, net carrier operating income, revenue tons hauled and operating ratio for North American reflect household goods operations only. Since the ICC's reporting requirements do not include an allocation of net income for carriers which provide dual service, the net income and return on equity for this carrier reflect both household goods and general freight operations. Consequently, this report shows composite data for all carriers excluding North American Van Lines so that a better comparison can be made of data from household goods operations.
[7]Operating revenues, net carrier operating income, and operating ratio for Mayflower Transit Co., American Red Ball Transit, Atlas Van Lines, Inc., Bekins Van Lines Co., Global Van Lines, Inc., and United Van Lines, Inc. as shown above, reflect household goods operations only, but revenue tons hauled, net income, and return on equity represent the results from all their operations, including the transportation of general freight and household goods as well as income from household goods services (packing, crating, storage, etc.). The general freight operations of these carriers are insubstantial in comparison to their much larger household goods operations.

Source: Interstate Commerce Commission

Carrier Finances

MAJOR MOTOR CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
AAA Cooper Transportation	1987	92.11	8.85	7.37	0.75	90.4	32.95
	1986	77.82	9.39	5.07	0.65	87.9	24.57
ABF Freight System	1987	526.29	10.44	0.42	2.40	98.0	1.58
	1986	500.15	29.35	11.49	2.23	94.1	55.12
ANR Freight System	1987	405.92	(12.64)	(8.19)	2.89	103.1	-0-
	1986	397.44	0.23	(0.44)	2.73	99.9	-0-
A-P-A Transport Corp.	1987	118.92	8.46	5.90	0.67	92.9	22.51
	1986	108.72	14.58	6.35	0.50	86.6	26.47
Advance Transportation	1987	72.19	3.08	2.36	0.63	95.7	52.66
	1986	67.86	2.99	1.54	0.60	95.6	41.52
Allied Van Lines	1987	382.74	3.56	5.36	0.62	99.1	14.75
	1986	376.91	(0.34)	3.66	0.62	100.1	11.32
Alterman Transport	1987	53.95	1.51	0.62	0.47	97.2	3.84
	1986	52.05	0.83	0.22	0.46	98.4	1.34
American Freight System[6]	1987	353.55	(25.25)	(15.29)	2.21	107.1	-0-
	1986	300.57	6.77	4.12	1.77	97.7	14.90
Atlas Van Lines	1987	184.75	10.82	0.56	0.28	94.1	-0-
	1986	179.85	12.45	1.55	0.27	93.1	-0-
Auto Convoy	1987	64.72	(2.62)	(3.39)	1.25	104.1	-0-
	1986	68.16	1.11	0.88	1.32	98.4	5.34
Bekins Van Lines	1987	216.72	0.51	0.61	0.37	99.8	1.99
	1986	201.82	2.08	1.46	0.33	99.0	4.46
Bowman Transportation	1987	183.69	(4.97)	(2.75)	2.00	102.7	-0-
	1986	179.78	5.02	1.81	1.89	97.2	3.67
Brown Transport	1987	179.08	(3.34)	(5.76)	2.07	101.9	-0-
	1986	189.75	9.99	5.81	2.43	94.7	82.28
Burnham Service Co.	1987	93.88	10.76	5.32	0.18	88.5	36.71
	1986	89.49	10.72	4.84	0.18	88.0	43.30
CW Transport	1987	108.89	(7.19)	(4.41)	0.93	106.6	-0-
	1986	117.09	0.97	1.59	0.95	99.2	4.94
Carolina Freight	1987	472.63	24.08	12.47	2.35	94.9	13.90
	1986	474.03	35.49	17.48	2.77	92.5	25.11
Carretta Trucking	1987	57.28	3.75	1.75	1.91	93.5	15.87
	1986	56.51	3.82	1.64	1.92	93.2	17.70
Cassens Transport	1987	67.22	0.10	(0.18)	1.09	99.8	-0-
	1986	67.70	3.00	2.02	0.82	95.6	76.71
Central Freight	1987	196.17	14.31	10.94	2.32	92.7	12.69
	1986	195.81	8.41	4.59	2.39	95.7	5.61
Central Transport	1987	276.00	10.85	9.61	4.67	96.1	14.22
	1986	244.01	10.64	7.30	4.24	95.6	35.65
Chemical Leaman	1987	203.25	6.53	0.91	6.37	96.8	2.74
	1986	185.30	8.36	3.29	6.14	95.5	10.84
Churchill Truck Lines	1987	108.86	2.58	1.32	0.66	97.6	7.24
	1986	97.53	5.12	3.20	0.57	94.8	20.46
Commercial Carriers Inc.	1987	189.54	14.83	8.80	3.20	92.2	24.86
	1986	182.94	13.49	6.87	3.10	92.6	21.99
Commercial Carrier Corp.	1987	46.03	4.11	3.86	6.73	91.1	13.86
	1986	49.13	5.87	3.14	8.28	88.0	12.62
Consolidated Freightways	1987	1,555.22	76.72	46.26	6.18	95.1	10.81
	1986	1,467.33	111.22	60.77	5.60	92.4	15.82
Contract Freighters	1987	82.04	9.54	6.82	1.21	88.4	102.05
	1986	73.76	6.92	4.40	1.22	90.6	117.88
Convoy Company	1987	62.64	0.18	(0.12)	0.68	99.7	-0-
	1986	61.93	3.39	1.86	0.68	94.5	15.22
Jack Cooper Transport	1987	79.83	0.84	(0.70)	1.30	98.9	-0-
	1986	103.18	4.28	2.82	1.51	95.9	80.66
Crete Carrier Corp.	1987	89.01	5.07	3.28	1.61	94.3	16.66
	1986	80.30	3.21	2.55	1.47	96.0	14.86
DSI Transports	1987	55.24	4.73	1.96	2.78	91.4	27.71
	1986	51.22	5.39	2.01	2.62	89.5	15.95
Daily Express	1987	49.73	2.25	2.39	1.03	95.5	15.43
	1986	53.53	2.63	3.66	0.68	95.1	26.58
Dallas & Mavis	1987	65.02	3.80	2.09	0.92	94.2	18.44
	1986	42.35	1.67	0.66	0.53	96.1	6.03
Deaton	1987	55.69	3.69	3.23	1.63	93.4	15.40
	1986	53.15	4.36	3.33	1.62	91.8	18.76
E & L Transport	1987	97.37	0.30	0.49	1.19	99.7	7.06
	1986	93.19	1.85	0.94	1.12	98.0	14.16
Estes Express	1987	79.58	13.90	8.10	0.86	82.5	29.82
	1986	72.66	14.02	8.28	0.79	80.7	38.13
FFE Transportation	1987	83.26	3.01	2.10	0.87	96.4	30.65
	1986	90.07	1.49	0.66	0.96	98.3	9.32
Fleet Transport	1987	61.89	(0.99)	(1.96)	5.44	101.6	-0-
	1986	55.15	2.13	0.80	6.06	96.1	11.50
G. I. Trucking	1987	61.96	0.81	(0.17)	0.34	98.7	-0-
	1986	54.81	0.73	(0.02)	0.30	98.7	-0-
Global Van Lines	1987	61.04	1.03	0.65	0.12	98.3	9.97
	1986	52.74	(0.24)	(3.92)	0.11	100.5	-0-
Graebel Van Lines	1987	62.12	1.12	0.48	0.07	98.2	9.82
	1986	50.16	2.96	1.42	0.06	94.1	38.65
Groendyke Transportation	1987	66.98	1.29	0.46	4.52	98.1	25.67
	1986	60.13	1.66	0.89	3.47	97.2	6.48
Holmes Transportation	1987	57.58	(3.78)	(3.28)	0.42	106.6	-0-
	1986	61.32	0.61	0.57	0.45	99.0	4.21
J. B. Hunt Transport	1987	286.42	42.97	25.97	3.48	85.0	40.61
	1986	203.79	46.74	24.74	2.74	77.1	58.85
Hyman Freightways	1987	73.53	0.92	0.46	0.56	98.7	11.83
	1986	61.89	0.50	0.16	0.49	99.2	3.87
Jones Motor Co.	1987	74.60	0.83	1.24	1.48	98.9	19.06
	1986	83.27	1.53	1.72	1.64	98.2	30.59
Jones Transfer	1987	71.37	(1.04)	(2.95)	1.38	101.5	-0-
	1986	70.81	1.25	0.23	1.34	98.2	1.83
Jones Truck Lines	1987	188.30	11.11	(1.94)	1.30	94.1	-0-
	1986	176.20	13.22	6.21	1.16	92.5	11.37
Kenosha Auto Transport	1987	51.77	1.23	0.16	0.57	97.6	1.74
	1986	55.37	1.39	0.70	0.62	97.5	8.05
Leasway Motor Car Transport	1987	60.19	(0.97)	(1.89)	0.89	101.6	-0-
	1986	47.52	0.77	0.05	0.90	98.4	0.75
Lyons Transportation	1987	63.73	(1.76)	(1.64)	0.48	102.8	-0-
	1986	60.83	0.30	0.26	0.40	99.5	2.11
M&G Convoy	1987	117.97	7.52	4.67	1.43	93.6	28.67
	1986	106.69	5.32	3.59	1.33	95.0	25.52
McGil Specialized Carriers	1987	51.29	1.33	0.52	0.65	97.4	11.05
	1986	50.15	1.35	0.71	0.65	97.3	14.98
McKenzie Tank Lines	1987	45.86	2.71	2.69	4.62	94.1	12.27
	1986	46.36	4.78	3.29	4.21	89.7	17.68
Marten Transport	1987	57.56	5.62	2.44	0.80	90.2	31.84
	1986	52.46	6.85	2.93	0.71	86.9	63.36
Matlack	1987	204.30	2.85	(0.76)	8.10	98.6	-0-
	1986	203.27	5.51	0.11	8.00	97.3	0.36
Mayflower Transit	1987	312.07	13.99	12.32	0.67	95.5	23.71
	1986	311.95	8.45	4.75	0.66	97.3	10.62

Carrier Finances

MAJOR MOTOR CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Melton Truck Lines	1987	47.94	0.19	0.21	0.98	99.6	1.96
	1986	52.53	(0.19)	0.01	1.20	100.4	0.08
Mercer Transportation	1987	60.26	2.80	2.75	1.02	95.4	39.23
	1986	57.07	2.58	2.52	1.01	95.5	54.58
Merchants Fast Motor	1987	76.39	(1.83)	(1.10)	0.91	102.4	-0-
	1986	79.56	(3.02)	(1.63)	0.97	103.8	-0-
Mid West Coast Transport	1987	70.75	2.67	1.61	0.80	96.2	18.30
	1986	69.22	2.46	1.42	0.77	96.4	19.32
Eck Miller Transportation	1987	54.92	0.79	0.77	1.39	98.6	14.89
	1986	61.13	1.47	1.20	1.32	97.6	30.57
Miller Transporters	1987	66.94	3.20	1.34	3.42	95.2	15.98
	1986	63.53	3.75	2.14	3.73	94.1	31.66
Missouri Nebraska Express	1987	70.19	6.50	4.37	0.72	90.7	32.55
	1986	56.37	5.81	2.47	0.61	89.7	168.97
Morgan Drive Away, Inc.	1987	49.59	1.48	1.11	0.67	97.0	16.05
	1986	55.00	0.54	0.42	0.65	99.0	6.55
The Motor Convoy, Inc.	1987	128.61	1.09	0.38	4.74	99.2	5.68
	1986	119.56	1.84	1.09	4.41	98.5	19.37
Munson Transportation	1987	66.09	6.43	3.20	1.35	90.3	63.73
	1986	49.87	5.07	1.43	1.05	89.8	40.10
National Carriers	1987	67.33	2.18	1.10	1.13	96.8	14.94
	1986	62.03	2.78	1.90	1.00	95.5	9.20
New Penn Motor Express	1987	95.46	17.17	9.71	0.70	82.0	25.73
	1986	84.77	15.41	8.65	0.64	81.8	29.23
North American Van Lines	1987	790.52	27.00	20.24	3.91	96.6	11.87
	1986	744.92	21.92	23.49	3.59	97.1	15.02
North Penn Transfer	1987	44.05	(2.40)	(2.68)	0.36	105.4	-0-
	1986	51.67	0.36	0.63	0.43	99.3	8.04
Northwest Transport	1987	131.93	11.08	6.88	0.67	91.6	16.82
	1986	110.42	14.14	8.02	0.53	87.2	24.47
Nu-Car Carriers	1987	142.92	8.31	2.93	2.85	94.2	21.87
	1986	133.72	7.65	2.14	2.48	94.3	19.48
Old Dominion Freight Lines	1987	106.32	0.11	(4.13)	1.31	99.9	-0-
	1986	104.52	1.50	(1.49)	0.98	98.6	-0-
Overnite Transportation	1987	543.13	71.05	23.52	3.95	86.9	9.30
	1986	529.74	84.66	43.74	3.73	84.0	20.47
Pacific Motor Trucking	1987	70.76	(1.79)	(1.40)	1.04	102.5	-0-
	1986	88.80	3.59	3.07	1.00	96.0	-0-
Pre-Fab Transit	1987	58.68	0.44	0.79	0.85	99.3	11.17
	1986	47.30	1.41	0.78	0.87	97.0	13.91
Preston Trucking	1987	318.85	(0.34)	3.17	2.31	100.1	3.28
	1986	320.63	10.69	5.20	2.30	96.7	5.38
Red Arrow Freight Lines	1987	48.89	(4.94)	(3.53)	0.67	110.1	-0-
	1986	52.54	(2.15)	(1.52)	0.65	104.1	-0-
Red Star Express	1987	114.44	7.27	5.71	0.63	93.6	14.92
	1986	111.56	10.82	6.19	0.60	90.3	23.00
Refiners Transport	1987	65.69	(1.98)	(3.49)	8.43	103.0	-0-
	1986	58.29	4.03	1.91	7.14	93.1	14.84
Roadway Express	1987	1,596.30	86.53	66.92	6.47	94.6	9.40
	1986	1,499.18	145.08	96.61	5.79	90.3	14.67
Riss International	1987	51.25	1.19	(0.36)	0.71	97.7	-0-
	1986	55.40	0.86	0.43	0.75	98.5	2.53
Ryder Freight System	1987	133.98	(8.26)	(6.21)	1.52	106.2	-0-
	1986	131.02	(7.75)	(6.67)	1.45	105.9	-0-
Saia Motor Freight	1987	62.59	8.22	1.31	0.73	86.9	7.10
	1986	55.18	6.42	6.85	0.65	88.4	27.92
St. Johnsbury Trucking	1987	284.20	30.31	7.94	1.84	89.3	19.21
	1986	260.17	26.68	11.68	1.66	89.7	27.66
Willis Shaw Frozen Express	1987	46.92	3.59	1.81	0.53	92.3	17.16
	1986	48.49	4.57	2.33	0.51	90.6	28.41
Smith's Transfer[6]	1987	240.25	(26.53)	(14.72)	1.40	111.0	-0-
	1986	363.62	2.79	(4.33)	2.01	99.2	-0-
Southeastern Freight	1987	101.86	5.75	5.85	1.06	94.4	28.55
	1986	88.95	10.66	10.18	0.93	88.0	58.25
Southwestern Motor Transport	1987	47.81	1.13	0.78	0.50	97.6	4.92
	1986	42.39	(0.45)	(0.37)	0.40	101.1	-0-
Spartan Express	1987	62.48	(6.64)	(4.48)	0.66	110.6	-0-
	1986	50.35	(0.78)	(0.74)	0.59	101.6	-0-
TNT Holland Motor Express	1987	144.01	17.16	8.17	1.25	88.1	26.55
	1986	124.13	15.63	7.29	1.05	87.4	22.50
TNT Pilot	1987	167.10	(21.91)	(25.28)	1.08	113.1	-0-
	1986	181.12	(4.57)	(7.43)	1.16	102.5	-0-
Transcon Lines	1987	333.16	(11.04)	(19.83)	1.85	103.3	-0-
	1986	343.55	10.62	2.32	1.82	96.9	5.72
Transus	1987	75.73	(5.98)	(0.30)	0.79	107.9	-0-
	1986	96.51	1.65	1.76	0.87	96.3	6.98
Tri-State Motor Transit	1987	103.18	(0.44)	(1.26)	0.84	100.4	-0-
	1986	115.74	5.42	4.43	0.89	95.3	23.27
United Van Lines	1987	419.41	(3.57)	(0.79)	0.80	100.9	-0-
	1986	397.65	1.07	1.66	0.69	99.7	5.80
Viking Freight	1987	185.95	7.94	4.38	1.30	95.7	9.71
	1986	170.89	10.47	4.70	1.17	93.9	11.85
Watkins Motor Lines	1987	146.70	6.31	1.42	0.56	95.7	8.10
	1986	127.07	5.25	1.95	0.46	95.9	11.04
Willig Freight	1987	68.63	4.64	2.19	0.54	93.2	17.60
	1986	62.62	4.47	2.84	0.50	92.9	23.93
Wilson Trucking	1987	55.46	6.64	4.16	0.48	88.0	19.40
	1986	51.77	6.96	3.80	0.43	86.6	21.09
Yellow Freight	1987	1,740.70	73.24	40.20	6.86	95.8	10.72
	1986	1,619.18	136.89	74.43	5.97	91.5	23.75

[1]Net Carrier Operating Income - Difference between carrier operating revenues and carrier operating expenses.
[2]Net Income – Net income after including fixed charges, non-operating income, income taxes, unusual or infrequent items, earnings attributable to discontinued segments, extraordinary items, and cumulative effect of changes in accounting principles.
[3]Revenue Tons Hauled reflect common and contract carrier service.
[4]Operating Ratio – Ratio of operating expenses to operating revenues.

Source: Interstate Commerce Commission

[5]Return on Equity – Ratio of net income to shareholders' equity less intangible property at end of previous calendar year. The symbol -0- indicates a deficit in net income and/or shareholders' equity.
[6]1987 data shown above for Smith's Transfer Corp. reflect operations from January 1, 1987 to September 30, 1987. Since this carrier merged into American Freight System on October 4, 1987, the results of operations over Smith's Transfer system from October 1, 1987 to December 31, 1987 are included in the data reported by and shown above for American Freight System. Although data for Smith's Transfer are shown separately above, American Freight System and Smith's Transfer are considered one carrier for this report.

CLASS I FREIGHT RAILROADS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Atchison, Topeka & Santa Fe[5]	1987	1,969.1	103.3	116.8	116.8	72.00	3.57
	1986	1,951.7	(51.8)	(62.7)	(62.7)	67.14	-0-
Boston & Maine	1987	85.5	(7.3)	10.5	10.5	1.73	-0-
	1986	86.3	(4.9)	3.0	3.0	1.65	-0-
Burlington Northern[5,6]	1987	4,028.7	361.3	361.8	361.8	206.3	9.27
	1986	3,733.0	63.9	81.1	(254.7)	188.2	1.40
CSX Transportation[5]	1987	4,634.2	374.8	337.3	394.5	144.00	5.88
	1986	4,528.8	342.9	329.3	329.3	132.81	5.55
Chicago & Northwestern	1987	777.1	33.4	19.9	17.2	27.81	3.23
	1986	823.6	34.5	36.0	36.0	26.98	3.34
Conrail	1987	3,180.1	234.2	267.0	299.0	81.07	4.30
	1986	3,088.1	279.7	315.7	431.1	74.61	5.37
Delaware & Hudson	1987	80.9	(5.6)	(7.8)	(7.8)	2.89	-0-
	1986	80.4	(11.8)	(13.5)	(13.5)	2.63	-0-
Denver & Rio Grande Western	1987	261.0	9.4	6.5	6.5	10.86	2.35
	1986	285.3	17.9	22.7	22.7	11.13	4.43
Florida East Coast	1987	130.3	11.1	29.6	29.6	3.79	6.75
	1986	121.2	11.4	25.4	25.4	3.65	7.06
Grand Trunk Western	1987	307.7	(5.7)	0.3	3.4	4.89	-0-
	1986	323.0	(26.4)	(16.4)	(16.4)	5.15	-0-
Illinois Central Gulf[5]	1987	548.6	35.5	1.5	1.5	16.95	3.59
	1986	679.5	(189.8)	(171.7)	(171.7)	18.92	-0-
Kansas City Southern[5]	1987	305.8	36.3	31.3	31.3	11.55	11.31
	1986	299.9	0.6	(3.0)	(3.0)	11.37	0.17
Missouri-Kansas-Texas	1987	241.8	22.8	23.1	23.1	9.71	6.77
	1986	232.7	6.3	6.8	24.7	8.10	1.82
Norfolk Southern[5]	1987	3,335.6	3.6	168.3	168.3	94.3	0.06
	1986	3,327.8	346.6	505.2	505.2	91.5	7.69
St. Louis Southwestern[5]	1987	374.1	29.6	33.1	33.1	14.00	6.50
	1986	360.6	(34.7)	(26.5)	(26.5)	12.47	-0-
Soo Line[5]	1987	589.4	9.4	(0.8)	(0.8)	21.94	1.17
	1986	606.3	(28.2)	(35.0)	(35.0)	19.50	-0-
Southern Pacific[5]	1987	1,925.3	27.4	168.5	168.5	67.01	0.99
	1986	1,909.0	(292.1)	(254.3)	(254.3)	62.53	-0-
Union Pacific[5,7]	1987	3,847.9	478.8	422.0	422.0	157.22	10.08
	1986	3,766.9	50.9	4.7	4.7	135.81	1.30

[1]Net Operating Income – Difference between operating revenues and the total of railway operating expenses, railway tax accruals and net equipment and joint facility rents.

[2]Income Before Extraordinary Items – Net income after including fixed charges, non-operating income, unusual or infrequent items and earnings attributable to discontinued segments but before extraordinary items and cumulative effect of changes in accounting principles.

[3]Net Income – Net income after extraordinary items and cumulative effect of changes in accounting principles.

[4]Return on Net Investment – Ratio of railway operating income to net investment in railway property used in transportation services at end of previous calendar year. The latter includes an allowance for working capital based on the ICC's Rail Form A formula. Accumulated deferred income tax reserves have been subtracted from the net investment base in accordance with the modification approved by the Commission in Ex Parte No. 393 (Sub No. 1), "Standards for Railroad Revenue Adequacy," served December 31, 1986. If net investment data as of the end of each quarter were available, returns on investment would be computed using an average of the net investment at the beginning and at the end of the respective twelve-month periods. However, net investment data is generally only available at the end of the calendar year; a substantial portion of this data is derived from annual reports (Form R-1) of Class I line-haul railroads which are required to be filed with the Commission by March 31 of the following year. Thus, the net investment data used for this report which represent the latest available end-of-calendar-year data are not averaged in order to assure that net railway operating income is more closely equated with the railroad assets generating this income. The symbol -0- for return on net investment indicates a deficit net railway operating income.

[5]Net railway operating income, income before extraordinary items and net income shown above were substantially reduced due to large accounting adjustments to record severence pay for employee buyouts and the write-down of assets attributable to freight car retirements and line abandonments.

[6]The large difference between Burlington Northern Railroad Company's net income before extraordinary items and net income for the 12 months ending December 31, 1986 is attributable to a $335.8 million charge representing the cumulative effect of a change in accounting principles. This change represents a retroactive adjustment effective January 1, 1986, of property acquisitions of prior periods to reflect a change in method of depreciation.

[7]Union Pacific, in its income statement for the year 1986, recorded $659.7 million of adjustments for severence pay and asset write-downs as an unusual or infrequent expense item. In order to provide uniformity and consistency with the reporting by other Class I railroads in 1985, 1986 and 1987 of similar costs associated with major restructuring programs, net operating income shown above for Union Pacific for the year 1986 has been adjusted to reflect these expenses as operating expenses. The related tax benefits ($303.3 million) attributable to these expenses had already been recorded in the net operating income. Consequently, as shown in footnote 5 above, the net impact on Union Pacific's earnings from this adjustment for the year 1986 is $356.4 million (total costs of $659.7 million less related tax benefits of $303.3 million).

Source: Interstate Commerce Commission

KEY PERFORMERS – RAILROADS

OPERATING REVENUE

Carrier	$ million
CSX Transportation	4,634.2
Burlington Northern	4,028.7
Union Pacific	3,847.9
Norfolk Southern	3,335.6
Conrail	3,180.1

HIGHEST OPERATING RATIOS

Carrier	Operating Ratio
Burlington Northern	206.3
Union Pacific	157.22
CSX Transportation	144.00
Norfolk Southern	94.30
Conrail	81.07

out. "Some of these trucking companies are pretty hungry for revenue to compensate for the Teamster contract, so I think there's a little more price discipline being exercised in the market."

The big question, she says, is whether carriers, particularly the industry giants, will be able to watch their market share drop even a bit without succumbing to the temptation of buying freight.

"For example, Roadway reported sub-par improvements in tonnage in the second quarter, which I think is attributable to the fact that they have gotten a little firmer in terms of their rates," says Lidgerwood. "But historically, when Roadway has experienced softness in its tonnage growth, the company has tended to go back out and start bidding for traffic.

"None of the trucking companies like to lose market share," she says. "However, losing a little market share in exchange for getting better yields is starting to look like a better way to go."

Consolidated Freightways also has made progress boosting rates with some of its large volume accounts, but the carrier also has lost some accounts through those efforts, Lidgerwood adds.

Since labor costs devour between 55 and 60 percent of revenues, and the new Teamster contract should drive those costs up by at least 7 percent this year, trucking managers will appreciate the help they'll get on the fuel side. Mid-year prices for diesel fuel, another big factor on the truckers' cost index, already are several cents below prevailing prices in 1987, and the outlook is for a further decline in the third quarter.

The behavior of smaller and regional companies probably will help determine how long the industry giants will lay off the discount emphasis. A lot of these smaller players, with non-union labor or lower wage "white paper" contracts with the Teamsters, also could seize the opportunity to gain market share in specific lanes. It will be interesting to see whether their inroads will be of the dimension that will attract retaliation from the larger carriers or renewed interest by the Teamsters in their special contracts.

The Rail Carriers

Last year was a reasonably good year for the nation's freight railroads, as traffic gains generally provided opportunities for improved profit performance. However, while rail ton-miles jumped nearly 10 percent over the previous year, revenue per ton-mile dropped again for the fifth straight year, to 2.72 cents. As a result, railroad earnings were a mixed bag.

The latter half of 1987 gave cause for encouragement, says Sally Smith, a transportation analyst with Alex Brown & Son of Baltimore. "Rail traffic picked up last year, and after a number of years we finally saw rates begin to improve," says Smith. As a general rule, western railroads, helped by their more diversified operations in real estate, energy and other natural resource businesses, generally outperformed their eastern counterparts in 1987. Grain volumes were another contributing factor for the western carriers, as a weaker dollar helped generate export sales.

"Those positive trends that surfaced in the latter half of 1987 have continued so far this year," says Smith. "Traffic volumes are up, and the railroads have gotten rate increases this year that, for the most part, they've been able to maintain."

Railroads also should benefit nicely from the problems now plaguing waterway operators, she says. Drought conditions have lowered water levels on many of the nation's inland waterways, slowing or bringing to a halt thousands of barges. "On a short-term basis, or at least for the balance of the year, the drought generally is a plus for the railroads, although it may be a negative next year when there is less grain to move," says Smith. "Right now, there's plenty of grain in storage. Grain prices are high, which encourages sales. And since the barge industry is having terrible problems, more business will be shifted to the rails."

Low water levels also translates into less hydropower capacity. That, in turn, generates greater demand for coal, oil or gas to fire electric plants. Since railroads haul the coal and sell the resources, they stand to benefit on that front as well.

Clouding the rail industry outlook are some sticky labor problems that could erupt in a strike before the summer ends. While the industry for years has been reducing employment through buy-outs and other means, major railroads currently are negotiating new contracts with their unions. Management's intent clearly is to get work rule changes to boost productivity. In the hot seat is the Chicago & North Western Transportation Co. (CNW), which has been in combat with its unions over crew sizes and other issues for some time. An emergency board appointed by President Reagan suggested a compromise settlement, but CNW appears determined to take the bull by the horns, implement the company's planned program, and take a strike as early as Aug. 5.

"If a strike develops and is restricted to the CNW, it could last for a while and wouldn't necessarily have a dramatic effect on transportation systems or the economy," says Smith. If a strike spreads throughout the rail industry through secondary picketing, Congress probably will step in, end the strike and order an arbitrated settlement, she adds.

CNW isn't the only carrier positioned to take on the unions. The major unions at CSX Transportation this spring rejected the company's "gain-sharing" proposal, which would reduce its work force by about 10,000. As a result, CSX has started dipping into its $1.5 billion cash pool to pay people to leave. However, company officials are determined to lower their labor costs, and earlier this year indicated an unenthusiastic willingness to take a strike if necessary in order to accomplish those work force reductions. ■

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HOW TO BENCHMARK LOGISTICS OPERATIONS

Benchmarking—comparing your performance to a baseline—is a good way to gauge progress. Here's how to go about it.

By Dr. Joseph Cavinato, Contributing Editor

Hey, how am I doing?" is Ed Koch's famous line. The feisty mayor of New York is basically doing a continuous benchmark study on how people feel about his performance. The key here is that he'd rather find out the bad news first, so that something can be done about it before it gets out of hand.

Benchmarking is a management technique that has caught on in the logistics field as a way to set operating norms, make comparisons against perceived "better" ways of doing things, and to set a basis for comparing future performance. Why the interest in benchmarking? Because it can help you improve against the competition, control costs, enhance customer service and survive during deregulation.

There are 11 basic approaches to benchmarking. They can be classified into a) comparing total performance against some other system, b) comparing performance of individual logistics components against others, c) using industry data sources, d) budgets, and e) creating your own logical efficiency norms.

• **Compare total distribution system performance against that of another company division.** An example here would be a specialty chemicals division of a firm observing and comparing total system costs and service performance with a sister paint division. The advantage here is the ease of information sharing.

• **Compare total distribution system performance against a major competitor.** Cost data is tough to obtain here, except for landed prices where these might be gleaned from customers. And total order cycle time, inventory availability, and other service attributes might often be determined through frank talks with customers. Many consulting firms perform blind surveys for clients to determine customer preference and gauge performance against competitors.

• **Compare total distribution system performance against a quality operation in use by a firm in another industry.** Cross-industry comparisons are useful in bringing fresh ideas into the firm that would not normally have been obtained through introspective studies or by looking at other firms in the same industry. Firms in a wide variety of industries have visited the order entry and shipping operation of L.L. Bean, for example. Comparisons outside the industry also are useful in keeping one step ahead of competitors within the industry.

• **Compare a specific logistics component against that in another division.** This would be the comparison of just traffic administration, order entry processes, warehouse picking, or other operational activities within the entire system. This is useful when specific nuts and bolts efficiencies are sought.

• **Compare a specific logistics component against that of a competitor's.** These are tough to measure unless sales or other departments in the company have reliable data on how the company must react to the competitor. Examples would be a faster order cycle time and using company trucks for service satisfaction of specific customers. The point here is that information about competitors often is tough to get. Often the only way to get information here is through customers, by hiring or interviewing key persons from the competitor, or by hiring a consultant who is a guru in that specific industry.

• **Compare a specific logistics component against that of anyone in the field.** A comparison between a cookie company private truck and that of an industrial pump company would be an example here. This kind of cross-industry component comparison is fine as long as the operating and service characteristics and competitive environments are similar in both industries, thus avoiding an apples/oranges problem. Purchasing managers often compare buying prices paid by their firms against transaction prices that are published in the field. Thus, the better buying tactics and strategies by the firm often are taught as follows: "While our prices paid increased by 3 percent, the industry average for this commodity was an increase of 5 percent. Thus, the 2 percent savings is attributable to the performance of our buyers."

continued

BENCHMARK YOUR LOGISTICS COSTS

($ million unless otherwise indicated)

Year Ending	GNP ($Trillion)	Inventory Carrying Costs	Transportation Costs	Administrative Costs	Total U.S. Logistics Costs	% GNP
1971	1.08	47	91	5	143	13.2
1972	1.25	54	97	6	157	12.6
1973	1.33	65	108	7	180	13.5
1974	1.43	83	116	8	207	14.5
1975	1.55	73	116	8	197	12.7
1976	1.72	80	133	9	222	12.9
1977	1.92	88	150	10	248	12.9
1978	2.16	107	175	12	294	13.6
1979	2.42	133	193	14	340	14.1
1980	2.63	153	205	15	373	14.2
1981	2.94	178	236	17	431	14.7
1982	3.07	161	240	17	418	13.6
1983	3.31	142	244	15	401	12.1
1984	3.66	159	250	16	425	11.6
1985	3.89	157	265	18	440	11.3
1986	3.98	154	271	18	443	11.1

This data from the Department of Commerce can help you benchmark your logistics costs against your company's "GNP." The universe in this study was quite broad, but it still offers interesting comparisons.

• **Industry Source Data Comparisons.** Traditional industry-wide data gathered and reported by respected industry groups provide a baseline of data against which to compare the firm. Many consulting and data source firms provide cost data for transportation, inventory holding costs, and purchasing transaction prices. These often are useful in making comparisons between what are seen as "industry" averages and the costs of an individual firm. A caution with industry data: it often is a very broad average.

• **Budgets.** This is perhaps the most primitive form of benchmarking. It is used to make a comparison of individual or departmental performance against a pre-established norm. In this manner, it presents a boundary for comparison, but its usefulness typically ends there. It does not provide for good decision-making information; even flexible budgets are not effective for showing managers "what could have been," or "what should have been." Another negative feature of budgets is that they are internally driven and based upon past performance within that company. Positive benchmarking should reflect the directions and performances a company wants its managers to pursue. Budgeting is not benchmarking, yet some companies call it that.

• **Zero-Based Budgeting.** This means looking at everything in a distribution operation from the ground up. Nothing is taken for granted. A zero-based approach requires the justification, or rejustification, of all facilities, systems and people. While this can be useful in examining the entire system, it does not always contain an external view toward competitors or other firms. In too many instances, zero-based budgeting applications are directed toward showing how the sky will fall if any one of our 20 key workers were to be eliminated. Like regular budgeting, zero-based budgeting is not very effective as a true benchmark.

• **Baselining.** In the early 1980s General Electric established what it believed were efficient methods for administering a traffic group, managing inventories, and operating a warehouse. These baselines were obtained by studying good practices in a wide range of industries. They gave managers a basis with which to judge their own operations. The baseline approach is a valuable starting point for benchmarking.

• **Field Methodologies.** The field of logistics has had to develop most of its own approaches for accounting, measuring inventories, capturing the concepts of productivity, and other management applications. Much of this has been research sponsored and published by the Council of Logistics Management, (the early productivity studies and the more recent accounting studies in transportation and warehousing), the Warehouse Education Research Council (financial analysis of warehouse alternatives), and other industry organizations. These sources present sound methodologies for making specific internal, external and cross-industry analyses.

Top Down or Bottoms Up?

The "top down" approach to benchmarking looks at overall performance in times or costs. Then, attempts are made to cut or force-fit the individual operations to this new standard. The "bottoms up" approach looks first to the efficiencies of individual activities such as traffic, storage, handling, and packaging, then attempts to make these individually more efficient. The intent here is that attention to the individual parts will result in the whole being more effective. ■

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